

South-East Asia Networks for Newborn & Birth Defect



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This Month...

Birth Defects

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- [Fluconazole use and birth defects in the National Birth Defects Prevention Study.](#)

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- [Outcome at 2 Years after Dextrose Gel Treatment for Neonatal Hypoglycemia: Follow-Up of a Randomized Trial.](#)
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Publications

Prevent birth defects - Ensure quality of life and dignity



Birth defects prevention and control is a resounding approach to augment reduction of neonatal mortality and to accelerate progress towards the unfinished task of MDG4. A set of regional policy briefs on prevention of birth defect, to ensure quality of life and dignity, has been released by the Regional director during the inaugural ceremony of the SEAR TAG in December 2015. Following are the policy briefs, on prevention and control of birth

defect, included in this compilation:

- [Addressing birth defects: Accelerating progress towards the unfinished task of MDG4](#)
- [Prevention and control of birth defects in South-East Asia: strategic framework, 2013-2017](#)
- [Elimination of congenital syphilis](#)
- [Fortifying staple food to prevent neural tube defects](#)
- [Preventing congenital rubella syndrome \(CRS\)](#)

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NBBD Mobile App Launched



WHO-SEAR NBBD mobile App has been officially launched by the Regional Director on 16 December 2015. It is a simple and user-friendly mobile application, transforming every feature provided for data entry

from the NBBB webpage to mobile devices. Moreover, it gives an offline data entry feature, so that data connection is not required all the time. Expanding the surveillance network to hospitals with limited resources; availability of computers, internet-connection and data entry personnel, were listed as a few challenges faced by participating hospitals. In order to overcome these challenges, it was proposed to develop a mobile application to link the web based surveillance network to the mobile devices.



Download SEAR NBBB App

WHO e-Pocketbook of Hospital Care for Children on iOS and android platform for phones and tablets



The WHO e-Pocketbook provides up-to-date, evidence-based clinical guidelines for children requiring hospital care. It is the electronic version of the widely used Pocket book of Hospital Care for Children (Blue Pocketbook). Designed for doctors, nurses and other health workers responsible for the care of children, these guidelines focus on the management of major causes of childhood mortality in developing countries, including:

Designed for doctors, nurses and other health workers responsible for the care of children, these guidelines focus on the management of major causes of childhood mortality in developing countries.

This free application is available on Google Play store and App store, You can download it for free.

[More Information](#)

Birth Defects

[Prevention of neural tube defects by the fortification of flour with folic acid: a population-based retrospective study in Brazil](#)

Leonor Maria Pacheco Santos, Roberto Carlos Reyes Lecca, Juan Jose Cortez-Escalante, Mauro Niskier Sanchez & Humberto Gabriel Rodrigues

Abstract OBJECTIVE

To determine if the fortification of wheat and maize flours with iron and folic acid – which became mandatory in Brazil from June 2004 – is effective in the prevention of neural tube defects.

METHODS

Using data from national information systems on births in central, south-eastern and southern Brazil, we determined the prevalence of neural tube defects among live births and stillbirths in a pre-fortification period – i.e. 2001–2004 – and in a post-fortification period – i.e. 2005–2014. We distinguished between anencephaly, encephalocele, meningocele, myelomeningocele and other forms of spina bifida.

FINDINGS

There were 8554 neural tube defects for 17 925 729 live births notified between 2001 and 2014. For the same period, 2673 neural tube defects were reported for 194 858 stillbirths. The overall prevalence of neural tube defects fell from 0.79 per 1000 pre-fortification to 0.55 per 1000 post-fortification (prevalence ratio, PR: 1.43; 95% confidence interval, CI: 1.38–1.50). For stillbirths, prevalence fell from 17.74 per 1000 stillbirths pre-fortification to 11.70 per 1000 stillbirths post-fortification. The corresponding values among live births were 0.57 and 0.44, respectively.

CONCLUSION

The introduction of the mandatory fortification of flour with iron and folic acid in Brazil was followed by a significant reduction in the prevalence of neural tube defects in our study area.

[Fluconazole use and birth defects in the National Birth Defects Prevention Study.](#)

Abstract

BACKGROUND

Low-dose fluconazole is commonly used to treat vulvovaginal candidiasis, a condition occurring frequently during pregnancy. Conflicting information exists on the association between low-dose fluconazole use among pregnant women and risk of major birth defects.

OBJECTIVE

We used data from the National Birth Defects Prevention Study to examine this association.

STUDY DESIGN

The National Birth Defects Prevention Study is a multisite, population-based, case-control study that includes pregnancies with estimated delivery dates from 1997-2011. Information on early pregnancy fluconazole use was collected by self-report from 31,645 mothers of birth defect cases and 11,612 mothers of unaffected controls. Adjusted odds ratios and 95% confidence intervals were estimated for birth defects with 5 or more exposed cases; crude odds ratios and exact 95% confidence intervals were estimated for birth defects with 3-4 exposed cases.

RESULTS

Of the 43,257 mothers analyzed, 44 case mothers and 6 control mothers reported using fluconazole. Six exposed infants had cleft lip with cleft palate, four had an atrial septal defect, and each of the following defects had three exposed cases: hypospadias, tetralogy of Fallot, d-transposition of the great arteries, and pulmonary valve stenosis. Fluconazole use was associated with cleft lip with cleft palate (odds ratio=5.53; confidence interval=1.68-18.24) and d-transposition of the great arteries (odds ratio =7.56; confidence interval =1.22-35.45).

CONCLUSION

The associations between fluconazole and both cleft lip with cleft palate and d-transposition of the great arteries are consistent with earlier published case reports, but not recent epidemiologic studies. Despite the larger sample size of the National Birth Defects Prevention Study, fluconazole use was rare. Further investigation is needed in large studies, with particular emphasis on oral clefts and conotruncal heart defects.

Newborn

[Outcome at 2 Years after Dextrose Gel Treatment for Neonatal Hypoglycemia: Follow-Up of a Randomized Trial.](#)

[Harris DL](#), [Alsweller JM](#), [Ansell JM](#), [Gamble GD](#), [Thompson B](#), [Wouldes TA](#), [Yu TY](#),

Abstract

OBJECTIVE

To determine neurodevelopmental outcome at 2 years' corrected age in children randomized to treatment with dextrose gel or placebo for hypoglycemia soon after birth (The Sugar Babies Study).

STUDY DESIGN

This was a follow-up study of 184 children with hypoglycemia (<2.6 mM [47 mg/dL]) in the first 48 hours and randomized to either dextrose (90/118, 76%) or placebo gel (94/119, 79%). Assessments were performed at Kahikatea House, Hamilton, New Zealand, and included neurologic function and general health (pediatrician assessed), cognitive, language, behavior, and motor skills (Bayley Scales of Infant and Toddler Development, Third Edition), executive function (clinical assessment and Behaviour Rating Inventory of Executive Function-Preschool Edition), and vision (clinical examination and global motion perception). Coprimary outcomes were neurosensory impairment (cognitive, language or motor score below -1 SD or cerebral palsy or blind or deaf) and processing difficulty (executive function or global motion perception worse than 1.5 SD from the mean). Statistical tests were two sided with 5% significance level.

RESULTS

Mean (\pm SD) birth weight was 3093 \pm 803 g and mean gestation was 37.7 \pm 1.6 weeks. Sixty-six children (36%) had neurosensory impairment (1 severe, 6 moderate, 59 mild) with similar rates in both groups (dextrose 38% vs placebo 34%, relative risk 1.11, 95% CI 0.75-1.63). Processing difficulty also was similar between groups (dextrose 10% vs placebo 18%, relative risk 0.52, 95% CI 0.23-1.15).

CONCLUSIONS

Dextrose gel is safe for the treatment of neonatal hypoglycemia, but neurosensory impairment is common among these children.

[What impact do essential newborn care practices have on neonatal mortality in low and lower-middle income countries? Evidence from Bangladesh.](#)

[Akter T](#), [Dawson A](#), [Sibbritt D](#).

Abstract

OBJECTIVE

To assess the impact of essential newborn care (ENC) practices on the mortality of neonates delivered at home in Bangladesh.

STUDY DESIGN

This study used cross-sectional data from the 2011 Bangladesh Demographic and Health Survey. Adjusted logistic regression model was used to examine the effect of ENC practices on neonatal mortality based on 3190 live-born infants.

RESULTS

Delayed bathing (72 h after delivery) significantly contributed to reducing neonatal mortality. A significant but counterintuitive relation was observed between the dry cord care and neonatal deaths.

CONCLUSIONS

Neonatal mortality may be reduced through emphasizing delayed bathing. Specific guidelines on the cleanliness of the fabric used to dry and wrap newborns, as well as emphasizing the use of clean delivery kits and initiation of immediate and exclusive breastfeeding, may improve neonatal outcomes. Further, the ENC guidelines in Bangladesh should include the application of topical antiseptics to the cord stump.

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